

Patent Abstracts of Japan

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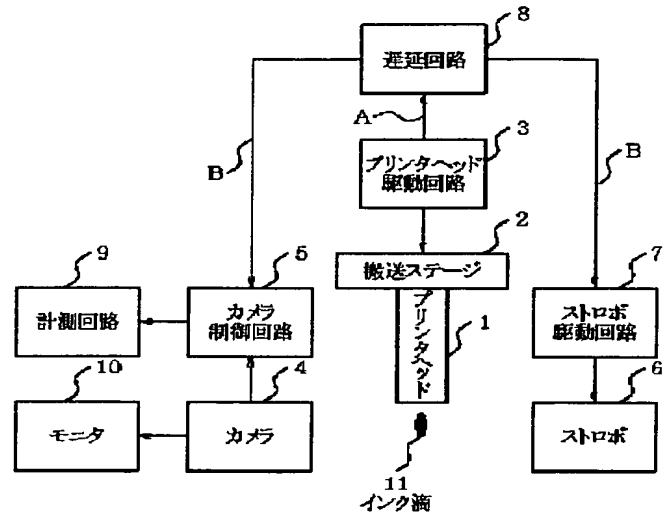
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TITLE : INK JET PRINTER HEAD DISCHARGE
INSPECTING APPARATUS



ABSTRACT : PROBLEM TO BE SOLVED: To inspect a discharge state and an ink head performance by directly detecting a discharged ink droplet and measuring its droplet speed.

SOLUTION: An ink droplet 11 discharged from a printer head 1 is imaged by a camera 4 with a strobe 6 as a light source. A waveform output trigger signal A output from a printer head driver 3 for driving the head 1 is used as a trigger signal for emitting a light from the strobe 6. The signal A is input as an input signal of a delay circuit 8, which produces an output signal as a signal delayed for a designated time from the input signal. The output signal of the circuit 8 is used as a trigger signal for emitting a light from the strobe 6. Accordingly, 11 images of the ink droplets imaged by the camera 4 are those obtained after the delay time is elapsed from a start of the discharge. Different delay time is set, two images are formed for the same ink droplets 11. A measuring circuit 9 detects a position of the droplet 11 and measures a diameter of the droplet, and a droplet speed is measured from a delay time difference and the position of the droplet 11.

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